

1 **ABSTRACT**

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3 'Improvements in or relating to vibration control'

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(Figure 1)

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6 A variable damper with a low off-state, having an outer  
7 member including a magnetic sleeve and an inner shaft,  
8 between which is supported an electromagnet.

9 Magnetorheological fluid is inserted between the members  
10 and a flow path is established over a control region  
11 between the electromagnet and the sleeve. Various  
12 embodiments of the damper are presented with the  
13 electromagnet supported on the outer member and on the  
14 shaft. A vibration control system incorporating a  
15 magnetorheological fluid variable damper is presented  
16 wherein the system provides a relative figure of merit  
17 for vibration control of at least 0.83. Devices  
18 incorporating the damper in a vibration control system  
19 are presented for snow boards, clubs, drills, engines,  
20 pumps, generators and vehicles.

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